

# Face mask acceptability and usage after mass distribution in a refugee camp during the Covid-19 pandemic: mixed-methods study

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## Introduction

The crowded conditions within camps for refugees and internally displaced people create risk environments for unmitigated transmission of SARS-CoV-2. Within one such setting, Cox's Bazar, Bangladesh, MSF distributed face masks in July-August 2020 for use by people living in eight camps to reduce transmission risks. However, uptake of face masks within camp populations and the factors influencing use are not well understood.

## Methods

We conducted a multi-level triangulation mixed-methods study in March 2021 in Cox's Bazar. Field observations were undertaken in public spaces in four camps, noting individuals' facemask use (appropriate versus not), use of other types of face covering (e.g., headscarf), and gender. We also analysed photographs posted on Twitter during March 2021 that were geotagged in the Cox's Bazar area, posted with a specific keyword, or posted by connected accounts and tweets. Photographs were also categorised by facemask/headscarf use and gender. Finally, we conducted 32 in-depth interviews to understand perceptions and barriers around mask use. Qualitative data were analysed thematically using NVivo.

## Ethics

This study was approved by the Office of the Civil Surgeon, Cox's Bazar, Bangladesh and by the MSF Ethics Review Board.

## Results

We made 3,152 public observations. Only 190/3,152 (6%) were using a mask appropriately. Men were more likely to be seen using any visible standard facemask appropriately than women (odds ratio, OR, 1.5, 95% confidence interval 1.1-2.2, p-value 0.037). Most women were observed wearing headscarves that precluded observing if masks were worn underneath. The content of 20 tweets were analysed. One photograph showed one person wearing a mask correctly; in 17 photographs individuals wore no face covering and in 2 wore scarves. Qualitative data suggested participants were aware of the importance of mask use but highlighted several reasons for not wearing them, including the fear of being insulted for wearing a mask due to the association between mask use and having Covid-19; a view that they were unnecessary because there was little Covid-19 in the camps; experiences of physical difficulties or discomfort whilst wearing masks; and a belief that wearing facemasks was unnecessary because "life or death is up to Allah". Participants highlighted the current shortage of masks in the camps as well as adverse consequences of insufficient masks, and requested further distribution.

## Conclusion

These findings suggest low adherence to recommendations around mask use in this camp setting. Multiple strategies need to be considered, including better distribution strategies and improved messaging and engagement with religious and community leaders to increase facemask use in settings such as Cox's Bazar.

## Conflicts of interest

None declared.



Sohana is an epidemiologist and has been working for MSF for the last three years in Kamrangirchar, within a primary health care project based in one of the biggest urban settings in Bangladesh. She is involved in various studies, including an occupational health and safety intervention, community engagement modelling, and sexual and gender-based violence. She has diverse experience as a leader, manager, and evaluator of public health and development programs. Prior to her work with MSF, Sohana was actively involved with studies on non-communicable diseases, focussed on type 2 diabetes mellitus. She received her bachelor training at the University of Dhaka and has a Master's degree in Public Health and Epidemiology from North South University, Bangladesh.